

**WE CLAIM:**

1. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;
- (b) an emulsifier system including:
  - (i) an acidic wax; and
  - (ii) an anionic emulsifier that is substantially hydrophilic and is soluble in water; and

(c) an acid to adjust the pH of the composition to a value in the range of from about 3.0 to about 6.0.

2. The method of claim 1 wherein the pH of the composition is from about 4.5 to about 5.8.

3. The method of claim 1 wherein the emulsifier is selected from the group consisting of ammonium lauryl sulfate, sodium laureth sulfate, sodium oleyl succinate, ammonium lauryl sulfosuccinate, sodium dodecylbenzenesulfonate, ammonium laureth sulfate, sodium N-lauryl sarcosinate, and sodium lauryl sulfate.

4. The method of claim 3 wherein the emulsifier is sodium lauryl sulfate.

5. The method of claim 1 wherein the acidic wax is selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax.

6. The method of claim 5 wherein the acidic wax is beeswax.

7. The method of claim 1 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic

ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

8. The method of claim 7 where the skin condition or disease is epidermolysis bullosa.

9. The method of claim 1 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

10. The method of claim 9 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

11. The method of claim 1 wherein the composition further comprises at least one of:

- (a) an emollient component comprising at least one ingredient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) at least one herbal extract selected from the group consisting of St. John's wort extract, witch hazel extract, chamomile extract, and arnica extract;
- (d) a preservative component comprising at least one preservative selected from the group consisting of methylparaben and propylparaben;
- (e) tetrasodium EDTA; and
- (f) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, butylene glycol, and glycerin.

12. The method of claim 2 wherein the composition comprises an oil-in-water emulsion comprising:

- (a) water;
- (b) sodium lauryl sulfate;
- (c) propylene glycol;

- carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

13. The method of claim 12 wherein the acidic wax is beeswax.

- (a) from about 50% to about 90% of water;
- (b) from about 0.5% to about 2.5% of 30% sodium lauryl sulfate;
- (c) from about 2.0% to about 9.0% of propylene glycol;
- (d) from about 0.05% to about 0.5% of tetrasodium EDTA;
- (e) from about 0.05% to about 0.5% of citric acid;
- (f) from about 5% to about 15% of lanolin oil;
- (g) from about 3% to about 10% of cetyl alcohol;
- (h) from about 1% to about 5% of stearyl alcohol;

(i) from about 0.5% to about 2.5% of an acidic wax selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

- (j) from about 1.0% to about 7.0% of cod liver oil;
- (k) from about 0.1% to about 1.0% of butylated hydroxytoluene;
- (l) from about 0.05% to about 0.5% of St. John's wort extract;
- (m) from about 0.05% to about 0.5% of witch hazel extract;
- (n) from about 0.05% to about 0.5% of chamomile extract;
- (o) from about 0.05% to about 0.5% of arnica extract;
- (p) from about 0.1% to about 0.5% of methylparaben;
- (q) from about 0.1% to about 0.5% of propylparaben;
- (r) from about 0.5% to about 10.0% of allantoin; and
- (s) from about 0.05% to about 0.5% of fragrance.

15. The method of claim 14 wherein the acidic wax is beeswax.

16. The method of claim 14 wherein the composition comprises:

- (a) from about 55% to about 75% of water;
- (b) from about 1.0% to about 2.5% of 30% sodium lauryl sulfate;
- (c) from about 3.0% to about 6.0% of propylene glycol;
- (d) from about 0.1% to about 0.3% of tetrasodium EDTA;
- (e) from about 0.08 to about 0.35% of citric acid;
- (f) from about 8.0% to about 12.0% of lanolin oil;
- (g) from about 3.5% to about 7.5% of cetyl alcohol;
- (h) from about 1.0% to about 3.0% of stearyl alcohol;
- (i) from about 1.0% to about 2.5% of an acidic wax selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;
- (j) from about 1.0% to about 4.0% of cod liver oil;
- (k) from about 0.2% to about 0.8% of butylated hydroxytoluene;
- (l) from about 0.05% to about 0.15% of St. John's wort extract;
- (m) from about 0.05% to about 0.15% of witch hazel extract;

- (n) from about 0.05% to about 0.15% of chamomile extract;
- (o) from about 0.05% to about 0.15% of arnica extract;
- (p) from about 0.15% to about 0.40% of methylparaben;
- (q) from about 0.10% to about 0.30% of propylparaben;
- (r) from about 0.50% to about 2.0% of allantoin; and
- (s) from about 0.1% to about 0.3% of fragrance.

17. The method of claim 16 wherein the acidic wax is beeswax.

18. The method of claim 16 wherein the composition comprises:

- (a) about 68.68% of water;
- (b) about 1.9% of sodium lauryl sulfate;
- (c) about 5.3% of propylene glycol;
- (d) about 0.15% of tetrasodium EDTA;
- (e) about 0.12% of citric acid;
- (f) about 10.6% of lanolin oil;
- (g) about 4.2% of cetyl alcohol;
- (h) about 2.0% of stearyl alcohol;
- (i) about 1.90% of an acidic wax selected from the group consisting of

beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

- (j) about 2.0% of cod liver oil;
- (k) about 0.5% of butylated hydroxytoluene;
- (l) about 0.1% of St. John's wort extract;
- (m) about 0.1% of witch hazel extract;
- (n) about 0.1% of chamomile extract;
- (o) about 0.1% of arnica extract;
- (p) about 0.3% of methylparaben;
- (q) about 0.25% of propylparaben;
- (r) about 1.50% of allantoin; and
- (s) about 0.20% of fragrance.

19. The method of claim 18 wherein the acidic wax is beeswax.

20. The method of claim 16 wherein the composition comprises:

- (a) about 61.18% of water;
- (b) about 1.9% of sodium lauryl sulfate;
- (c) about 5.3% of propylene glycol;
- (d) about 0.15% of tetrasodium EDTA;
- (e) about 0.12% of citric acid;
- (f) about 10.6% of lanolin oil;
- (g) about 4.2% of cetyl alcohol;
- (h) about 2.0% of stearyl alcohol;
- (i) about 1.90% of an acidic wax selected from the group consisting of

beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

- (j) about 2.0% of cod liver oil;
- (k) about 0.5% of butylated hydroxytoluene;
- (l) about 0.1% of St. John's wort extract;
- (m) about 0.1% of witch hazel extract;
- (n) about 0.1% of chamomile extract;
- (o) about 0.1% of arnica extract;
- (p) about 0.3% of methylparaben;
- (q) about 0.25% of propylparaben;
- (r) about 9.00% of allantoin; and
- (s) about 0.20% of fragrance.

21. The method of claim 20 wherein the acidic wax is beeswax.

22. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;

- (b) an emollient component comprising:
- (i) lanolin oil;
  - (ii) cetyl alcohol;
  - (iii) stearyl alcohol; and
  - (iv) cod liver oil; and
- (c) butylated hydroxytoluene;
- (d) an emulsifier system comprising at least one nonionic emulsifier that is an ethoxylated ether or an ethoxylated ester whose carbon chain length ranges from 8 to 22 carbon atoms; and
- (e) at least one acid selected from the group consisting of:
- (i) an organic acid of from 2 to 22 carbon atoms; and
  - (ii) an inorganic acid selected from the group consisting of hydrochloric acid, sulfuric acid, and phosphoric acid to adjust the pH from about 3.0 to about 6.0.

23. The method of claim 22 wherein the pH of the composition is from about 4.5 to about 5.8.

24. The method of claim 22 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

25. The method of claim 24 wherein the skin condition or disease is epidermolysis bullosa.

26. The method of claim 22 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

27. The method of claim 26 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

28. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;
- (b) an emulsifier system including at least one nonionic emulsifier that is an ethoxylated ether or an ethoxylated ester whose carbon chain length ranges from 8 to 22 carbon atoms; and
- (c) an acid to adjust the pH of the emulsion to a value in the range of from about 3.0 to about 6.0.

29. The method of claim 28 wherein the pH of the composition is from about 4.5 to about 5.8.

30. The method of claim 28 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

31. The method of claim 30 wherein the skin condition or disease is epidermolysis bullosa.

32. The method of claim 28 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

33. The method of claim 32 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

34. The method of claim 28 wherein the composition further comprises at least one of:



- (a) an emollient component comprising at least one ingredient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) at least one herbal extract selected from the group consisting of St. John's wort extract, witch hazel extract, chamomile extract, and arnica extract;
- (d) a preservative component comprising at least one preservative selected from the group consisting methylparaben, propylparaben, and diazolidinyl urea;
- (e) tetrasodium EDTA; and
- (f) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, butylene glycol, and glycerin.

35. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin; and
- (b) an emulsifier system comprising:
  - (i) an acidic anionic polymer; and
  - (ii) a polyethylene glycol ester of stearic acid;

wherein the pH of the composition is adjusted to a value within a range of from about 3.0 to about 6.0.

36. The method of claim 35 wherein the pH of the composition is from about 5.0 to about 6.0.

37. The method of claim 35 wherein the acidic anionic polymer is a carboxypolymethylene polymer.

38. The method of claim 35 wherein the composition further comprises a carbohydrate polymer selected from the group consisting of galactoarabinan, polygalactose, and polyarabinose.

39. The method of claim 38 wherein the carbohydrate polymer is galactoarabinan.

40. The method of claim 35 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

41. The method of claim 40 wherein the skin condition or disease is epidermolysis bullosa.

42. The method of claim 35 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

43. The method of claim 42 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

44. The method of claim 35 wherein the composition further comprises:

- (a) an emollient component comprising at least one emollient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, glycerin, and ethylene glycol; and
- (d) a preservative component comprising at least one preservative selected from the group consisting of methylparaben, propylparaben, and diazolidinyl urea.

45. The method of claim 36 wherein the composition comprises:

- (a) from about 50.0% to about 90.0% of water;
- (b) from about 0.30% to about 3.0% of a carboxypolymethylene polymer;
- (c) from about 2.0% to about 9.0% of propylene glycol;
- (d) from about 0.25% to about 2.5% of PEG-100 stearate;

- (e) from about 5.0% to about 15.0% of lanolin oil;
- (f) from about 1.0% to about 8.0% of cetyl alcohol;
- (g) from about 0.5% to about 6.0% of stearyl alcohol;
- (h) from about 1.0% to about 7.0% of cod liver oil;
- (i) from about 0.10% to about 1.0% of butylated hydroxytoluene;
- (j) from about 0.10% to about 0.50% of methylparaben;
- (k) from about 0.10% to about 0.50% of propylparaben;
- (l) from about 0.05% to about 0.25% of diazolidinyl urea;
- (m) from about 0.50% to about 10.0% of allantoin;
- (n) from about 0.05% to about 0.50% of fragrance; and
- (o) from about 0.05% to about 3.0% of triethanolamine.

46. The method of claim 45 wherein the composition comprises:

- (a) from about 60.0% to about 85.0% of water;
- (b) from about 0.50% to about 2.0% of a carboxypolymethylene polymer;
- (c) from about 4.0% to about 7.0% of propylene glycol;
- (d) from about 0.50% to about 2.0% of PEG-100 stearate;
- (e) from about 8.0% to about 12.0% of lanolin oil;
- (f) from about 2.0% to about 7.0% of cetyl alcohol;
- (g) from about 0.75% to about 5.0% of stearyl alcohol;
- (h) from about 1.0% to about 4.0% of cod liver oil;
- (i) from about 0.20% to about 0.80% of butylated hydroxytoluene;
- (j) from about 0.15% to about 0.40% of methylparaben;
- (k) from about 0.15% to about 0.45% of propylparaben;
- (l) from about 0.10% to about 0.20% of diazolidinyl urea;
- (m) from about 1.0% to about 2.0% of allantoin;
- (n) from about 0.10% to about 0.40% of fragrance; and
- (o) from about 0.20% to about 2.0% of triethanolamine.

47. The method of claim 46 wherein the composition comprises:

- (a) about 69.95% of water;
- (b) about 0.85% of a carboxypolymethylene polymer;

48. The method of claim 45 wherein the composition comprises:

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49. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

(a) allantoin; and

(b) an emulsifier system comprising:

(i) an acidic anionic polymer; and

(ii) an anionic emulsifier that is substantially hydrophilic and is soluble in water, the pH of the composition being adjusted to a range from about 3.0 to about 6.0.

50. The method of claim 49 wherein the pH of the composition is from about 5.0 to about 6.0.

51. The method of claim 49 wherein the anionic emulsifier is selected from the group consisting of ammonium lauryl sulfate, sodium laureth sulfate, sodium oleyl succinate, ammonium lauryl sulfosuccinate, sodium dodecylbenzenesulfonate, ammonium laureth sulfate, sodium N-lauryl sarcosinate, and sodium lauryl sulfate.

52. The method of claim 51 wherein the anionic emulsifier is sodium lauryl sulfate.

53. The method of claim 49 wherein the acidic anionic polymer is carboxypolymethylene.

54. The method of claim 53 wherein the composition further comprises a carbohydrate polymer selected from the group consisting of galactoarabinan, polygalactose and polyarabinose.

55. The method of claim 54 wherein the carbohydrate polymer is galactoarabinan.

56. The method of claim 49 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic

ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, gout, and lupus erythematosus.

57. The method of claim 56 wherein the skin condition or disease is epidermolysis bullosa.

58. The method of claim 49 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

59. The method of claim 58 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

60. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

(a) allantoin; and

(b) an emulsifier system comprising:

(i) an acidic anionic polymer; and

(ii) a nonionic emulsifier that is an ethoxylated ether or an

ethoxylated ester whose carbon chain length ranges from 8 to 22 carbon atoms, wherein the pH of the composition is from about 3.0 to about 6.0.

61. The method of claim 60 wherein the pH of the composition is from about 5.0 to about 6.0.

62. The method of claim 60 wherein the acidic anionic polymer is carboxypolymethylene.

63. The method of claim 60 wherein the composition further comprises a carbohydrate polymer selected from the group consisting of galactoarabinan, polygalactose and polyarabinose.

64. The method of claim 63 wherein the carbohydrate polymer is galactoarabinan.

65. The method of claim 60 wherein the emulsifier system further comprises glyceryl stearate.

66. The method of claim 60 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

67. The method of claim 66 wherein the skin condition or disease is epidermolysis bullosa.

68. The method of claim 60 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

69. The method of claim 68 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

70. The method of claim 60 wherein the composition further comprises at least one of:

- (a) an emollient component comprising at least one emollient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) at least one herbal extract selected from the group consisting of St. John's wort extract, witch hazel extract, chamomile extract, and arnica extract;
- (d) a preservative component comprising at least one preservative selected from the group consisting of methylparaben, propylparaben and diazolidinyl urea;
- (e) tetrasodium EDTA; and

(f) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, butylene glycol, and glycerin.

71. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;
- (b) an emulsifier system comprising an acidic anionic polymer; and
- (c) an organic or inorganic base to adjust the pH to a value in a range of from about 3.0 to about 6.0.

72. The method of claim 71 wherein the pH of the composition is from about 5.0 to about 5.5.

73. The method of claim 71 wherein the organic or inorganic base is triethanolamine.

74. The method of claim 71 wherein the acidic anionic polymer is carboxypolymethylene.

75. The method of claim 71 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

76. The method of claim 75 wherein the skin condition or disease is epidermolysis bullosa.

77. The method of claim 71 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.



78. The method of claim 77 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

79. The method of claim 71 wherein the composition further comprises at least one of:

- (a) an emollient component comprising at least one ingredient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) a preservative component comprising at least one preservative selected from the group consisting of methylparaben and propylparaben; and
- (d) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, butylene glycol, and glycerin.

80. The method of claim 72 wherein the composition comprises:

- (a) from about 50.0% to about 90.0% of water;
- (b) from about 0.40% to about 3.0% of carboxypolymethylene polymer;
- (c) from about 2.0% to about 9.0% of propylene glycol.
- (d) from about 5.0% to about 15.0% of lanolin oil;
- (e) from about 1.0% to about 8.0% of cetyl alcohol;
- (f) from about 1.0% to about 7.0% of cod liver oil;
- (g) from about 0.10% to about 1.0% of butylated hydroxytoluene;
- (h) from about 0.10% to about 0.50% of methylparaben;
- (i) from about 0.10% to about 0.50% of propylparaben;
- (j) from about 0.50% to about 10.0% of allantoin;
- (k) from about 0.05% to about 0.5% of fragrance; and
- (l) from about 0.05% to about 3.0% of 95% triethanolamine.

81. The method of claim 80 wherein the composition comprises:

- (a) from about 60.0% to about 80.0% of water;
- (b) from about 0.50% to about 2.0% of carboxypolymethylene polymer;

- (c) from about 4.0% to about 7.0% of propylene glycol.
- (d) from about 8.0% to about 12.0% of lanolin oil;
- (e) from about 2.0% to about 7.0% of cetyl alcohol;
- (f) from about 1.0% to about 4.0% of cod liver oil;
- (g) from about 0.30% to about 0.80% of butylated hydroxytoluene;
- (h) from about 0.15% to about 0.40% of methylparaben;
- (i) from about 0.15% to about 0.40% of propylparaben;
- (j) from about 1.0% to about 2.0% of allantoin;
- (k) from about 0.10% to about 0.40% of fragrance; and
- (l) from about 0.20% to about 2.0% of 95% triethanolamine.

82. The method of claim 81 wherein the composition comprises:

- (a) about 73.55% of water;
- (b) about 1.00% of carboxypolymethylene polymer;
- (c) about 5.7% of propylene glycol.
- (d) about 10.0% of lanolin oil;
- (e) about 3.00% of cetyl alcohol;
- (f) about 2.00% of cod liver oil;
- (g) about 0.50% of butylated hydroxytoluene;
- (h) about 0.30% of methylparaben;
- (i) about 0.25% of propylparaben;
- (j) about 1.50% of allantoin;
- (k) about 0.20% of fragrance; and
- (l) about 0.80% of 95% triethanolamine.

83. The method of claim 80 wherein the composition comprises:

- (a) about 66.05% of water;
- (b) about 1.00% of carboxypolymethylene polymer;
- (c) about 5.7% of propylene glycol.
- (d) about 10.0% of lanolin oil;
- (e) about 3.00% of cetyl alcohol;
- (f) about 2.00% of cod liver oil;

- (g) about 0.50% of butylated hydroxytoluene;
- (h) about 0.30% of methylparaben;
- (i) about 0.25% of propylparaben;
- (j) about 9.00% of allantoin;
- (k) about 0.20% of fragrance; and
- (l) about 0.80% of 95% triethanolamine.

84. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;
- (b) an emulsifier system comprising:
  - (i) cetyl alcohol; and
  - (ii) stearic acid; and
- (c) a weak organic base to adjust the pH to a range of from about 3.0 to

about 6.0.

85. The method of claim 84 wherein the pH of the composition is from about 5.0 to about 5.8.

86. The method of claim 84 wherein the weak organic base is triethanolamine.

87. The method of claim 84 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

88. The method of claim 87 wherein the skin condition or disease is epidermolysis bullosa.

89. The method of claim 84 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

90. The method of claim 89 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

91. The method of claim 84 wherein the composition further comprises at least one of:

- (a) an emollient component comprising at least one ingredient selected from the group consisting of lanolin oil, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) a preservative component comprising at least one preservative selected from the group consisting of methylparaben and propylparaben; and
- (d) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, butylene glycol, and glycerin.

92. The method of claim 84 wherein the composition comprises:

- (a) from about 50.0% to about 90.0% of water;
- (b) from about 2.0% to about 9.0% of propylene glycol;
- (c) from about 0.2% to about 4.0% of triethanolamine;
- (d) from about 5.0% to about 15.0% of lanolin oil;
- (e) from about 1.0% to about 7.0% of cetyl alcohol;
- (f) from about 0.50% to about 5.0% of stearic acid;
- (g) from about 1.0% to about 7.0% of cod liver oil;
- (h) from about 0.10% to about 1.0% of butylated hydroxytoluene;
- (i) from about 0.10% to about 0.50% of methylparaben;
- (j) from about 0.10% to about 0.50% of propylparaben;
- (k) from about 0.50% to about 10.0% of allantoin; and
- (l) from about 0.05% to about 0.50% of fragrance.

93. The method of claim 92 wherein the composition comprises:
- (a) from about 60.0% to about 85.0% of water;
  - (b) from about 4.0% to about 7.0% of propylene glycol;
  - (c) from about 0.5% to about 3.0% of triethanolamine;
  - (d) from about 8.0% to about 12.0% of lanolin oil;
  - (e) from about 2.0% to about 6.0% of cetyl alcohol;
  - (f) from about 1.0% to about 4.0% of stearic acid;
  - (g) from about 1.5% to about 5.0% of cod liver oil;
  - (h) from about 0.20% to about 0.80% of butylated hydroxytoluene;
  - (i) from about 0.15% to about 0.40% of methylparaben;
  - (j) from about 0.15% to about 0.40% of propylparaben;
  - (k) from about 1.0% to about 2.0% of allantoin; and
  - (l) from about 0.10% to about 0.40% of fragrance.
94. The method of claim 93 wherein the composition comprises:
- (a) about 71.70% of water;
  - (b) about 5.70% of propylene glycol;
  - (c) about 1.25% of triethanolamine;
  - (d) about 10.60% of lanolin oil;
  - (e) about 3.50% of cetyl alcohol;
  - (f) about 2.50% of stearic acid;
  - (g) about 2.00% of cod liver oil;
  - (h) about 0.50% of butylated hydroxytoluene;
  - (i) about 0.30% of methylparaben;
  - (j) about 0.25% of propylparaben;
  - (k) about 1.50% of allantoin; and
  - (l) about 0.20% of fragrance.
95. The method of claim 93 wherein the composition comprises:
- (a) about 64.20% of water;
  - (b) about 5.70% of propylene glycol;
  - (c) about 1.25% of triethanolamine;

- (d) about 10.60% of lanolin oil;
- (e) about 3.50% of cetyl alcohol;
- (f) about 2.50% of stearic acid;
- (g) about 2.00% of cod liver oil;
- (h) about 0.50% of butylated hydroxytoluene;
- (i) about 0.30% of methylparaben;
- (j) about 0.25% of propylparaben;
- (k) about 9.00% of allantoin; and
- (l) about 0.20% of fragrance.

96. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;
- (b) an emulsifier system comprising:
  - (i) sodium stearyl lactylate;
  - (ii) sodium isostearyl lactylate;
  - (iii) optionally, triethanolamine stearate;
  - (iv) optionally, at least one nonionic emulsifier selected from the

group consisting of a nonionic emulsifier that is an ethoxylated ether or an ethoxylated ester whose carbon chain length ranges from 8 to 22 carbon atoms; and

- (c) an acid to adjust the pH to a range of from about 3.0 to about 6.0.

97. The method of claim 96 wherein the pH of the composition is from about 5.0 to about 5.8.

98. The method of claim 96 wherein the acid is citric acid.

99. The method of claim 96 wherein the composition comprises triethanolamine stearate.

100. The method of claim 96 wherein the composition comprises at least one nonionic emulsifier selected from the group consisting of a nonionic emulsifier that is an ethoxylated ether or an ethoxylated ester whose carbon chain length ranges from 8 to 22 carbon atoms.

101. The method of claim 96 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

102. The method of claim 101 wherein the skin condition or disease is epidermolysis bullosa.

103. The method of claim 96 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

104. The method of claim 103 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

105. The method of claim 96 wherein the composition further comprises at least one of:

- (a) an emollient component comprising at least one ingredient selected from the group consisting of lanolin oil, cetyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) a preservative component comprising at least one preservative selected from the group consisting of methylparaben and propylparaben;
- (d) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, butylene glycol, and glycerin; and
- (e) tetrasodium EDTA.

106. The method of claim 97 wherein the composition comprises:
- (a) from about 50.0% to about 90.0% of water;
  - (b) from about 2.0% to about 9.0% of propylene glycol;
  - (c) from about 0.05% to about 0.5% of citric acid;
  - (d) from about 0.30% to about 3.0% of sodium stearyl lactylate;
  - (e) from about 0.05% to about 1.0% of sodium isostearyl lactylate;
  - (f) from about 0.05% to about 0.25% of tetrasodium EDTA;
  - (g) from about 5.0% to about 15.0% of lanolin oil;
  - (h) from about 1.0% to about 8.0% of cetyl alcohol;
  - (i) from about 1.0% to about 7.0% of cod liver oil;
  - (j) from about 0.10% to about 1.0% of butylated hydroxytoluene;
  - (k) from about 0.10% to about 0.50% of methylparaben;
  - (l) from about 0.10% to about 0.50% of propylparaben;
  - (m) from about 0.50% to about 10.0% of allantoin; and
  - (n) from about 0.05% to about 0.50% of fragrance.
107. The method of claim 106 wherein the composition comprises:
- (a) from about 60.0% to about 80.0% of water;
  - (b) from about 4.0% to about 7.0% of propylene glycol;
  - (c) from about 0.10% to about 0.40% of citric acid;
  - (d) from about 0.50% to about 2.5% of sodium stearyl lactylate;
  - (e) from about 0.10% to about 0.70% of sodium isostearyl lactylate;
  - (f) from about 0.10% to about 0.20% of tetrasodium EDTA;
  - (g) from about 8.0% to about 12.0% of lanolin oil;
  - (h) from about 2.0% to about 7.0% of cetyl alcohol;
  - (i) from about 1.0% to about 4.0% of cod liver oil;
  - (j) from about 0.20% to about 0.80% of butylated hydroxytoluene;
  - (k) from about 0.15% to about 0.40% of methylparaben;
  - (l) from about 0.15% to about 0.40% of propylparaben;
  - (m) from about 1.0% to about 2.0% of allantoin; and
  - (n) from about 0.10% to about 0.40% of fragrance.



108. The method of claim 107 wherein the composition comprises:

- (a) about 73.42% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 0.18% of citric acid;
- (d) about 1.00% of sodium stearoyl lactylate;
- (e) about 0.25% of sodium isostearoyl lactylate;
- (f) about 0.15% of tetrasodium EDTA;
- (g) about 15.0% of lanolin oil;
- (h) about 3.80% of cetyl alcohol;
- (i) about 2.00% of cod liver oil;
- (j) about 0.50% of butylated hydroxytoluene;
- (k) about 0.30% of methylparaben;
- (l) about 0.25% of propylparaben;
- (m) about 1.50% of allantoin; and
- (n) about 0.20% of fragrance.

109. The method of claim 106 wherein the composition comprises:

- (a) about 65.92% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 0.18% of citric acid;
- (d) about 1.00% of sodium stearoyl lactylate;
- (e) about 0.25% of sodium isostearoyl lactylate;
- (f) about 0.15% of tetrasodium EDTA;
- (g) about 15.0% of lanolin oil;
- (h) about 3.80% of cetyl alcohol;
- (i) about 2.00% of cod liver oil;
- (j) about 0.50% of butylated hydroxytoluene;
- (k) about 0.30% of methylparaben;
- (l) about 0.25% of propylparaben;
- (m) about 9.00% of allantoin; and
- (n) about 0.20% of fragrance.

110. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin; and
- (b) an emulsifier system comprising at least one polyethyleneglycol ether of cetearyl alcohol, wherein the number of polyethylene glycol moieties in the polyethyleneglycol ether of cetearyl alcohol is from 6 to 40; and
- (c) an acid to adjust the pH of the composition to a range of from about 3.0 to about 6.0.

111. The method of claim 110 wherein the pH of the composition is from about 5.0 to about 5.8.

112. The method of claim 110 wherein the acid is citric acid.

113. The method of claim 110 wherein the emulsifier system comprises cetareth-25 and cetareth-6.

114. The method of claim 110 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

115. The method of claim 114 wherein the skin condition or disease is epidermolysis bullosa.

116. The method of claim 110 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

117. The method of claim 116 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

118. The method of claim 110 wherein the composition further comprises at least one of:

- (a) an emollient component comprising at least one ingredient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;
- (c) a preservative component comprising at least one preservative selected from the group consisting of methylparaben, propylparaben, and diazolidinyl urea;
- (d) a solvent component comprising at least one solvent selected from the group consisting of ethylene glycol, propylene glycol, butylene glycol, and glycerin; and
- (e) tetrasodium EDTA.

119. The method of claim 111 wherein the composition comprises:

- (a) from about 50.0% to about 90.0% of water;
- (b) from about 2.0% to about 9.0% of propylene glycol;
- (c) from about 0.05% to about 0.50% of tetrasodium EDTA;
- (d) from about 0.50% to about 4.0% of ceteareth-25;
- (e) from about 0.04% to about 0.40% of citric acid;
- (f) from about 5.0% to about 15.0% of lanolin oil;
- (g) from about 3.0% to about 10.0% of cetyl alcohol;
- (h) from about 1.0% to about 5.0% of stearyl alcohol;
- (i) from about 0.50% to about 4.0% of ceteareth-6;
- (j) from about 1.0% to about 7.0% of cod liver oil;
- (k) from about 0.1% to about 1.0% of butylated hydroxytoluene;
- (l) from about 0.10% to about 0.50% of methylparaben;
- (m) from about 0.10% to about 0.50% of propylparaben;
- (n) from about 0.05% to about 0.50% of diazolidinyl urea;
- (o) from about 0.50% to about 10.0% of allantoin; and
- (p) from about 0.05% to about 0.50% of fragrance.

120. The method of claim 119 wherein the composition comprises:

- (a) from about 55.0% to about 75.0% of water;

- (b) from about 4.2% to about 7.0% of propylene glycol;
- (c) from about 0.10% to about 0.30% of tetrasodium EDTA;
- (d) from about 2.0% to about 3.5% of ceteareth-25;
- (e) from about 0.10% to about 0.30% of citric acid;
- (f) from about 8.0% to about 12.0% of lanolin oil;
- (g) from about 3.5% to about 7.5% of cetyl alcohol;
- (h) from about 2.0% to about 4.0% of stearyl alcohol;
- (i) from about 1.0% to about 3.0% of ceteareth-6;
- (j) from about 1.0% to about 4.0% of cod liver oil;
- (k) from about 0.20% to about 0.80% of butylated hydroxytoluene;
- (l) from about 0.15% to about 0.40% of methylparaben;
- (m) from about 0.15% to about 0.40% of propylparaben;
- (n) from about 0.10% to about 0.30% of diazolidinyl urea;
- (o) from about 1.0% to about 2.0% of allantoin; and
- (p) from about 0.10% to about 0.30% of fragrance.

121. The method of claim 120 wherein the composition comprises:

- (a) about 66.33% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 0.15% of tetrasodium EDTA;
- (d) about 2.60% of ceteareth-25;
- (e) about 0.12% of citric acid;
- (f) about 10.60% of lanolin oil;
- (g) about 4.30% of cetyl alcohol;
- (h) about 3.50% of stearyl alcohol;
- (i) about 1.80% of ceteareth-6;
- (j) about 2.00% of cod liver oil;
- (k) about 0.50% of butylated hydroxytoluene;
- (l) about 0.30% of methylparaben;
- (m) about 0.25% of propylparaben;
- (n) about 0.15% of diazolidinyl urea;
- (o) about 1.50% of allantoin; and

(p) about 0.20% of fragrance.

122. The method of claim 119 wherein the composition comprises:

- (a) about 58.83% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 0.15% of tetrasodium EDTA;
- (d) about 2.60% of cetearth-25;
- (e) about 0.12% of citric acid;
- (f) about 10.60% of lanolin oil;
- (g) about 4.30% of cetyl alcohol;
- (h) about 3.50% of stearyl alcohol;
- (i) about 1.80% of cetearth-6;
- (j) about 2.00% of cod liver oil;
- (k) about 0.50% of butylated hydroxytoluene;
- (l) about 0.30% of methylparaben;
- (m) about 0.25% of propylparaben;
- (n) about 0.15% of diazolidinyl urea;
- (o) about 9.00% of allantoin; and
- (p) about 0.20% of fragrance.

123. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;
- (b) an emulsifier system comprising:
  - (i) a polyethylene glycol ester of stearic acid; and
  - (ii) glyceryl stearate; and
- (c) an acid to adjust the pH of the composition to a range of from about 3.0

to about 6.0.

124. The method of claim 123 wherein the pH of the composition is from about 5.0 to about 5.8.

125. The method of claim 123 wherein the number of ethylene glycol moieties in the polyethylene glycol ester of stearic acid is from 25 to 100.

126. The method of claim 123 wherein the polyethylene glycol ester of stearic acid is PEG-100 stearate.

127. The method of claim 123 wherein the acid is citric acid.

128. The method of claim 123 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

129. The method of claim 128 wherein the skin condition or disease is epidermolysis bullosa.

130. The method of claim 123 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

131. The method of claim 130 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

132. The method of claim 123 wherein the composition further comprises at least one of:

- (a) an emollient component comprising at least one ingredient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (b) at least one antioxidant selected from the group consisting of butylated hydroxytoluene and butylated hydroxyanisole;

133. The method of claim 124 wherein the composition comprises:

134. The method of claim 133 wherein the composition comprises:

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- (h) from about 1.0% to about 3.5% of stearyl alcohol;
- (i) from about 2.0% to about 4.0% of glyceryl stearate;
- (j) from about 1.0% to about 4.0% of cod liver oil;
- (k) from about 0.20% to about 0.80% of butylated hydroxytoluene;
- (l) from about 0.15% to about 0.40% of methylparaben;
- (m) from about 0.15% to about 0.40% of propylparaben;
- (n) from about 0.10% to about 0.30% of diazolidinyl urea;
- (o) from about 1.0% to about 2.0% of allantoin; and
- (p) from about 0.10% to about 0.40% of fragrance.

135. The method of claim 134 wherein the composition comprises:

- (a) about 67.86% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 0.15% of tetrasodium EDTA;
- (d) about 0.14% of citric acid;
- (e) about 2.60% of PEG-100 stearate;
- (f) about 10.60% of lanolin oil;
- (g) about 3.00% of cetyl alcohol;
- (h) about 2.50% of stearyl alcohol;
- (i) about 2.50% of glyceryl stearate;
- (j) about 2.00% of cod liver oil;
- (k) about 0.50% of butylated hydroxytoluene;
- (l) about 0.30% of methylparaben;
- (m) about 0.25% propylparaben;
- (n) about 0.20% of diazolidinyl urea;
- (o) about 1.50% to about 2.0% of allantoin; and
- (p) about 0.20% of fragrance.

136. The method of claim 133 wherein the composition comprises:

- (a) about 60.36% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 0.15% of tetrasodium EDTA;



- (d) about 0.14% of citric acid;
- (e) about 2.60% of PEG-100 stearate;
- (f) about 10.60% of lanolin oil;
- (g) about 3.00% of cetyl alcohol;
- (h) about 2.50% of stearyl alcohol;
- (i) about 2.50% of glyceryl stearate;
- (j) about 2.00% of cod liver oil;
- (k) about 0.50% of butylated hydroxytoluene;
- (l) about 0.30% of methylparaben;
- (m) about 0.25% propylparaben;
- (n) about 0.20% of diazolidinyl urea;
- (o) about 1.50% to about 2.0% of allantoin; and
- (p) about 0.20% of fragrance.

137. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

- (a) allantoin;
- (b) a carbohydrate polymer; and
- (c) an emulsifier system comprising:
  - (i) an acidic wax; and
  - (ii) an anionic emulsifier that is substantially hydrophilic and is

soluble in water;

wherein the pH of the composition is between about 3.0 and about 6.0.

138. The method of claim 137 wherein the pH of the composition is between about 5.0 and about 6.0.

139. The method of claim 137 wherein the acidic wax is selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax.

140. The method of claim 139 wherein the acidic wax is beeswax.

141. The method of claim 137 wherein the carbohydrate polymer is selected from the group consisting of galactoarabinan, polygalactose, and polyarabinose.

142. The method of claim 141 wherein the carbohydrate polymer is galactoarabinan.

143. The method of claim 137 wherein the anionic emulsifier that is substantially hydrophilic and soluble in water is selected from the group consisting of ammonium lauryl sulfate, sodium laureth sulfate, sodium oleyl succinate, ammonium lauryl sulfosuccinate, sodium dodecylbenzenesulfonate, ammonium laureth sulfate, sodium N-lauryl sarcosinate, and sodium lauryl sulfate.

144. The method of claim 143 wherein the anionic emulsifier that is substantially hydrophilic and soluble in water is sodium lauryl sulfate.

145. The method of claim 137 wherein the composition further comprises citric acid.

146. The method of claim 137 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

147. The method of claim 146 wherein the skin condition or disease is epidermolysis bullosa.

148. The method of claim 137 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

149. The method of claim 148 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

150. The method of claim 137 wherein the composition further comprises at least one of:

- (a) a solvent component comprising at least one solvent selected from the group consisting of propylene glycol, butylene glycol, and glycerin;
- (b) an emollient component comprising at least one emollient selected from the group consisting of lanolin oil, cetyl alcohol, stearyl alcohol, and cod liver oil;
- (c) butylated hydroxytoluene;
- (d) tetrasodium EDTA; and
- (e) a preservative component comprising at least one preservative selected from the group consisting of methylparaben and propylparaben.

151. The method of claim 126 wherein the composition comprises:

- (a) from about 50.0% to about 90.0% of water;
- (b) from about 2.0% to about 9.0% of propylene glycol;
- (c) from about 0.50% to about 5.0% of a 30% solution of sodium lauryl sulfate;
- (d) from about 0.05% to about 0.30% of tetrasodium EDTA;
- (e) from about 1.0% to about 25.0% of galactoarabinan;
- (f) from about 0.05% to about 0.25% of citric acid;
- (g) from about 5.0% to about 15.0% of lanolin oil;
- (h) from about 1.0% to about 8.0% of cetyl alcohol;
- (i) from about 0.50% to about 6.0% of stearyl alcohol;
- (j) from about 0.50% to about 5.0% of an acidic wax selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

- (k) from about 0.50% to about 15.0% of cod liver oil;
- (l) from about 0.1% to about 3.0% of butylated hydroxytoluene;
- (m) from about 0.10% to about 0.50% of methylparaben;
- (n) from about 0.10% to about 0.50% of propylparaben;
- (o) from about 0.50% to about 10.0% of allantoin; and
- (p) from about 0.05% to about 0.50% of fragrance.

152. The method of claim 151 wherein the acidic wax is beeswax.

153. The method of claim 151 wherein the composition comprises:

- (a) from about 52.0% to about 80.0% of water;
- (b) from about 4.0% to about 7.0% of propylene glycol;
- (c) from about 1.0% to about 3.0% of a 30% solution of sodium lauryl sulfate;
- (d) from about 0.10% to about 0.20% of tetrasodium EDTA;
- (e) from about 3.0% to about 15.0% of galactoarabinan;
- (f) from about 0.10% to about 0.20% of citric acid;
- (g) from about 8.0% to about 12.0% of lanolin oil;
- (h) from about 2.0% to about 7.0% of cetyl alcohol;
- (i) from about 1.0% to about 4.0% of stearyl alcohol;
- (j) from about 1.0% to about 3.0% of an acidic wax selected from the

group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

- (k) from about 1.0% to about 10.0% of cod liver oil;
- (l) from about 0.25% to about 2.50% of butylated hydroxytoluene;
- (m) from about 0.15% to about 0.40% of methylparaben;
- (n) from about 0.15% to about 0.40% of propylparaben;
- (o) from about 1.0% to about 2.0% of allantoin; and
- (p) from about 0.10% to about 0.40% of fragrance.

154. The method of claim 153 wherein the acidic wax is beeswax.

155. The method of claim 153 wherein the composition comprises:

- (a) about 61.65% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 1.90% of a 30% solution of sodium lauryl sulfate;
- (d) about 0.15% of tetrasodium EDTA;
- (e) about 5.00% of galactoarabinan;
- (f) about 0.15% of citric acid;
- (g) about 10.60% of lanolin oil;
- (h) about 4.20% of cetyl alcohol;
- (i) about 2.00% of stearyl alcohol;
- (j) about 1.90% of an acidic wax selected from the group consisting of

beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

- (k) about 2.00% of cod liver oil;
- (l) about 0.50% of butylated hydroxytoluene;
- (m) about 0.30% of methylparaben;
- (n) about 0.25% of propylparaben;
- (o) about 1.50% of allantoin; and
- (p) about 0.20% of fragrance.

156. The method of claim 155 wherein the acidic wax is beeswax.

157. The method of claim 151 wherein the composition comprises:

- (a) about 54.15% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 1.90% of a 30% solution of sodium lauryl sulfate;
- (d) about 0.15% of tetrasodium EDTA;
- (e) about 5.00% of galactoarabinan;
- (f) about 0.15% of citric acid;
- (g) about 10.60% of lanolin oil;
- (h) about 4.20% of cetyl alcohol;
- (i) about 2.00% of stearyl alcohol;

(j) about 1.90% of an acidic wax selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

(k) about 2.00% of cod liver oil;

(l) about 0.50% of butylated hydroxytoluene;

(m) about 0.30% of methylparaben;

(n) about 0.25% of propylparaben;

(o) about 9.00% of allantoin; and

(p) about 0.20% of fragrance.

158. The method of claim 157 wherein the acidic wax is beeswax.

159. A method of treating a skin condition or disease characterized by ulceration, inflammation, or blistering of the skin, comprising applying to the skin an allantoin-containing composition in a therapeutically effective amount, the allantoin-containing composition comprising an oil-in-water emulsion comprising:

(a) allantoin in a concentration of at least about 2.5%; and

(b) an emulsifier system comprising:

(i) an acidic wax; and

(ii) an anionic emulsifier that is substantially hydrophilic and is

soluble in water;

wherein the pH of the composition is between about 3.0 and about 6.0.

160. The method of claim 159 wherein the acidic wax is selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax.

161. The method of claim 160 wherein the acidic wax is beeswax.

162. The method of claim 159 wherein the anionic emulsifier that is substantially hydrophilic and soluble in water is selected from the group consisting of ammonium lauryl

sulfate, sodium laureth sulfate, sodium oleyl succinate, ammonium lauryl sulfosuccinate, sodium dodecylbenzenesulfonate, ammonium laureth sulfate, sodium N-lauryl sarcosinate, and sodium lauryl sulfate.

163. The method of claim 162 wherein the anionic emulsifier that is substantially hydrophilic and soluble in water is sodium lauryl sulfate.

164. The method of claim 159 wherein the composition further comprises citric acid.

165. The method of claim 159 wherein the skin condition or disease is selected from the group consisting of epidermolysis bullosa, decubitus ulcers, pressure ulcers, diabetic ulcers, milia, eczema, urticaria, atopic dermatitis, contact dermatitis, arthritis, gout, and lupus erythematosus.

166. The method of claim 159 wherein the skin condition or disease is epidermolysis bullosa.

167. The method of claim 137 further comprising administering an additional therapeutic agent in a therapeutically effective quantity.

168. The method of claim 167 wherein the additional therapeutic agent is selected from the group consisting of steroids, nonsteroidal anti-inflammatory agents, leukotriene antagonists, and monoclonal antibodies.

169. The method of claim 159 wherein the composition further comprises at least one of:

- (a) a solvent component comprising at least one solvent selected from the group consisting of propylene glycol, butylene glycol, and glycerin;
- (b) an emollient component comprising at least one emollient selected from the group consisting of lanolin oil, cetyl alcohol, and stearyl alcohol;
- (c) tetrasodium EDTA; and

sulfate;

- (a) from about 50.0% to about 90.0% of water;
- (b) from about 2.0% to about 9.0% of propylene glycol;
- (c) from about 0.50% to about 5.0% of a 30% solution of sodium lauryl
- (d) from about 0.05% to about 0.50% of tetrasodium EDTA;
- (e) from about 0.05% to about 0.50% of citric acid;
- (f) from about 5.0% to about 15.0% of lanolin oil;
- (g) from about 3.0% to about 10.0% of cetyl alcohol;
- (h) from about 1.0% to about 5.0% of stearyl alcohol;
- (i) from about 0.50% to about 5.0% of an acidic wax selected from the

- (j) from about 0.10% to about 0.50% of methylparaben;
- (k) from about 0.10% to about 0.50% of propylparaben;
- (l) from about 2.5% to about 10.0% of allantoin; and
- (m) from about 0.05% to about 0.50% of fragrance.

172. The method of claim 170 wherein the composition comprises:

- (a) about 58.98% of water;
- (b) about 5.70% of propylene glycol;
- (c) about 3.00% of a 30% solution of sodium lauryl sulfate;
- (d) about 0.15% of tetrasodium EDTA;
- (e) about 0.12% of citric acid;
- (g) about 10.60% of lanolin oil;
- (h) about 4.20% of cetyl alcohol;
- (i) about 2.00% of stearyl alcohol;



(j) about 3.00% of an acidic wax selected from the group consisting of beeswax, carnauba wax, candelilla wax, siliconyl beeswax, siliconyl carnauba wax, and a synthetic acidic wax;

(k) about 0.30% of methylparaben;

(l) about 0.25% of propylparaben;

(m) about 9.0% of allantoin; and

(n) about 0.20% of fragrance.

173. The method of claim 172 wherein the acidic wax is beeswax.